

Appl. No. 10/623,264
Amdt. Dated May 19, 2006
Reply to Office Action of February 22, 2006

Attorney Docket No. 81842.0016
Customer No. 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An optical drive device, comprising:

an optical drive controller adapted to couple to and cause a laser diode driver to provide signals to drive a laser diode, the optical drive controller capable of testing [[a]] timing characteristics of an electrical channel between the optical drive controller and a laser diode driver and, in response to the testing [[a]] of an electrical channel between the optical drive controller and a laser diode driver, generating a set of calibration signals to program a drive characteristic associated with a laser diode driver, the set of calibration signals responsive to the timing characteristics tested by the optical drive controller to accommodate a characteristic of a channel between the optical drive controller and a laser diode driver.

2. (Currently amended) The optical drive device of claim 1, wherein the optical drive controller outputs one or more electrical test signals to a laser diode driver through a channel between a laser diode driver and the optical drive controller, the optical drive controller receiving one or more electrical monitor signals generated in response to the one or more test signals, the one or more monitor signals received through a electrical channel between a laser diode driver and the optical drive

Appl. No. 10/623,264
Amdt. Dated May 19, 2006
Reply to Office Action of February 22, 2006

Attorney Docket No. 81842.0016
Customer No. 26021

controller, the optical drive controller generating one or more calibration signals responsive to the monitor signals.

3. (Original) The optical drive device of claim 1, wherein the optical drive controller generates a control signal to set a laser diode driver in a calibration mode for a calibration process and generates a control signal to set a laser diode driver in a normal operation mode.
4. (Original) The optical drive device of claim 1, wherein the calibration signals adjust circuits within the optical drive controller.
5. (Original) The optical drive device of claim 1, wherein the calibration signals adjust circuits within a laser diode driver.
6. (Original) The optical drive device of claim 1, wherein the optical drive controller outputs a test signal to a laser diode driver, the optical drive controller receiving a monitor signal generated in response to the test signal, the optical drive controller outputting a second test signal, responsive to the monitor signal, for calibrating a laser diode driver in an iterative process.

Appl. No. 10/623,264
Amdt. Dated May 19, 2006
Reply to Office Action of February 22, 2006

Attorney Docket No. 81842.0016
Customer No. 26021

7. (Original) The optical drive device of claim 6, wherein the optical drive controller generates a control signal to set a laser diode driver in a calibration mode for a calibration process and generates a control signal to set a laser diode driver in a normal operation mode following the iterative process.

8. (Currently amended) An optical drive device, comprising:
an optical drive controller; and
a laser diode driver providing drive signals to a laser diode, the laser diode driver responsive to the optical drive controller to selectively provide read and write drive signals to the laser diode; and
a signal WSR channel coupling the optical drive controller to the laser diode driver,
the optical drive controller outputting timing test signals over the signal WSR channel, the laser diode driver receiving the timing test signals from the signal WSR channel and characterizing the signal WSR channel and responsively generating a monitor signal responsive to timing characteristics of the WSR channel, the laser diode driver providing the monitor signal over the WSR channel to the optical drive controller.

Appl. No. 10/623,264
Amdt. Dated May 19, 2006
Reply to Office Action of February 22, 2006

Attorney Docket No. 81842.0016
Customer No. 26021

9. (Currently amended) The optical drive device of claim 8, wherein the optical drive controller generates a calibration signal in response to the monitor signal and, responsive to the calibration signal, programs a drive characteristic of a laser diode driver to accommodate a timing characteristic of the signal WSR channel between the optical drive controller and a laser diode driver determined by testing.
10. (Currently amended) The optical drive device of claim 9, wherein the signal WSR channel couples through a flexible cable and wherein the laser diode driver and the laser diode are mounted on an optical head of the optical drive device.
11. (Original) The optical drive device of claim 9, wherein the optical drive controller outputs a first control signal to set the laser diode driver in a calibration mode for a calibration process and generates a second control signal to set the laser diode driver in a normal operation mode.
12. (Original) The optical drive device of claim 7, wherein the optical drive controller generates a calibration signal in response to the monitor signal and, responsive to the calibration signal, programs a drive characteristic within the optical drive controller to accommodate a characteristic of the signal channel between the optical drive controller and a laser diode driver determined by testing.